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UNITED STATES DEPARTMENT OF AGRICULTURE  
Bureau of Agricultural Economics

In cooperation with

NEW YORK STATE DEPARTMENT OF AGRICULTURE AND MARKETS

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APPLE MANUFACTURES

THE USE OF APPLES IN CIDER MILLS,

EVAPORATORS AND CANNERIES IN NEW YORK STATE

1937-44

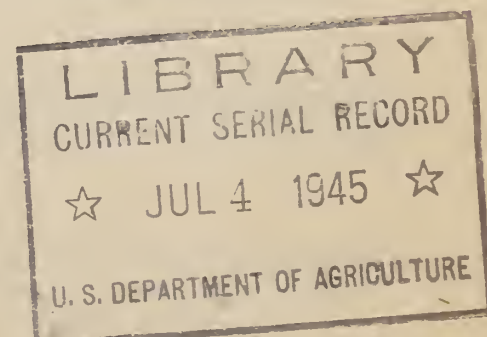
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Albany, New York  
June 1945





APPLE MANUFACTURES - 1937-44

The apple crop of 1944 was a little above average. High prices for fruit permitted close utilization of supplies. The total volume of apples processed in New York cider mills, evaporators and canneries from the 1944 crop, 7,607,800 bushels, was only 4 percent below 1942, which is the highest in the 7 years of record. Of these, 479,400 bushels came from other states. The gross farm value of these apples in 1944 was about \$7,523,000.

As usual, cider mills processed more apples than other establishments, followed closely by canneries, with evaporators trailing behind. In addition to cider, apple juice, canned apples and apple sauce, dried apples and chops, the standard products of the apple processing industries, substantial quantities of apples and apple sauce were preserved by freezing, with freezing taking on large importance in 1944, while special dessert mixtures, mince meat and infant foods required substantial quantities of fruit. Dried skins, cores and pomace to be used mainly for pectin represented partial utilization of valuable material that would otherwise have been wasted.

The quantity of apples utilized in the processing establishments in New York in 1944 was larger than the total apple crop harvested in the commercial areas of any other states than Washington, Pennsylvania, Virginia and Michigan.

Unused facilities available for processing of apples are indicated by the fact that there were listed as not operating in 1940, 1941, 1942, 1943 and 1944 the following: Cider mills, 197 in 1940, 161 in 1941, 230 in 1942, 280 in 1943, and 265 in 1944; evaporators, 38, 30, 26, 39 and 29; establishments canning apples or carrying on similar processes, 13, 9, 10, 10 and 16 respectively. In the main, the closed establishments were those having relatively small capacity and many of them were probably poorly equipped. Several are destroyed by fire, dismantled or put to other uses each year. Few new plants have been built in recent years.

The totals of apples and products are believed comparably complete from year to year. In each year there have been a few establishments from which reports have not been available. In those cases, estimates on the best available basis have been included. Minor revisions for 1943 are included here.

The cooperation of the owners or operators of the establishments who furnished information concerning their own businesses is acknowledged with appreciation.

(The Bureau of Markets of the Department of Agriculture and Markets gave cooperation in obtaining reports. The compilations were made in the Bureau of Statistics.)

R. L. GILLET, Director of Agricultural  
Statistics and Agricultural  
Statistician



Table 1.- Apples and apple products in cider mills, evaporators, and canneries, New York, 1937-44

Year	: Cider Mills	: Evaporators	: Canneries	: Total
<u>Establishments in operation, Number 1/</u>				
1937	573	47	27	640
1938	452	29	22	500
1939	504	45	26	573
1940	383	19	27	427
1941	410	26	29	461
1942	315	42	27	374
1943	235	32	28	283
1944	241	30	38	300

<u>Apples received, net bushels 2/ 8/</u>				
1937	4,434,300	1,284,800	1,873,100	7,592,200
1938	2,621,800	373,900	866,200	3,861,900
1939	4,772,900	1,207,100	2,381,900	8,361,900
1940	2,309,000	199,400	1,686,600	4,195,000
1941	3,769,000	536,700	3,022,600	7,328,300
1942	3,578,700	1,120,800	3,208,000	7,907,500
1943	2,741,800	502,400	2,367,100	5,611,300
1944	3,980,900	441,100	3,185,800	7,607,800

<u>Quantity of apples (included above) from other States, bushels</u>				
1937	9,600	-	1,000	10,600
1938	10,300	-	200	10,500
1939	6,800	-	600	7,400
1940	5,800	-	4,700	10,500
1941	11,700	-	5,800	17,500
1942	26,500	700	34,800	62,000
1943	95,700	-	2,750	98,450
1944	432,800	4,500	42,100	479,400

<u>Average price paid for apples, per 100 lbs. 3/</u>				
1937	\$.22	\$.33	\$.43	\$.29
1938	.26	.28	.58	.34
1939	.18	.27	.43	.26
1940	.28	.29	.75	.47
1941	.34	.57	1.19	.72
1942	.44	1.46	1.59	1.05
1943	1.13	2.86	3.12	2.12
1944	1.04	2.96	3.21	2.06

<u>Average date operations started and stopped 4/</u>						
	<u>Start</u>	<u>Stop</u>	<u>Start</u>	<u>Stop</u>	<u>Start</u>	<u>Stop</u>
1937	Oct. 4	Dec. 1	Oct. 4	Dec. 5	Oct. 6	Dec. 9
1938	Oct. 4	Nov. 30	Oct. 5	Nov. 16	Oct. 11	Nov. 18
1939	Oct. 2	Dec. 6	Oct. 8	Dec. 19	Sept. 28	Dec. 7
1940	Oct. 7	Dec. 7	Oct. 15	Nov. 28	Oct. 14	Dec. 17
1941	Oct. 4	Dec. 6	Oct. 3	Dec. 9	Sept. 29	Dec. 18
1942	Oct. 5	Dec. 4	Sept. 29	Dec. 22	Oct. 5	Jan. 3 (1943)
1943	Oct. 7	Dec. 2	Oct. 6	Nov. 30	Oct. 10	Dec. 30
1944	Oct. 4	Dec. 1	Oct. 4	Nov. 29	Oct. 13	Dec. 25

Table 1.- Apples and apple products in cider mills, evaporators and canneries, New York, 1937-44 - Continued

Year	: Cider Mills	: Evaporators	: Canneries	: Total
<u>Apples used for principal purposes:</u>				
<u>Used for cider, bushels 5/</u>				
1937	4,434,300	-	66,700	4,501,000
1938	2,621,800	-	9,000	2,630,800
1939	4,772,900	-	278,900	5,051,800
1940	2,309,000	-	69,100	2,378,100
1941	3,769,000	-	5,000	3,774,000
1942	3,578,700	-	10,000	3,588,700
1943	2,741,800	-	119,800	2,861,600
1944	3,980,900	-	13,000	3,993,900
<u>Apples used for principal purposes:</u>				
<u>Used for drying, bushels</u>				
1937	-	1,284,800	-	1,284,800
1938	-	373,900	-	373,900
1939	-	1,207,100	-	1,207,100
1940	-	199,400	-	199,400
1941	-	536,700	-	536,700
1942	-	1,120,800	-	1,120,800
1943	-	502,400	-	502,400
1944	-	441,100	-	441,100
<u>Used for canned apples and apple sauce, bushels</u>				
1937	-	-	1,657,700	1,657,700
1938	-	-	790,100	790,100
1939	-	-	1,987,800	1,987,800
1940	-	-	1,351,500	1,351,500
1941	-	-	2,580,600	2,580,600
1942	-	-	2,751,700	2,751,700
1943	-	-	1,865,400	1,865,400
1944	-	-	2,010,200	2,010,200
<u>Used for other products, bushels 6/</u>				
1937	-	-	148,700	148,700
1938	-	-	67,100	67,100
1939	-	-	115,200	115,200
1940	-	-	266,000	266,000
1941	-	-	437,000	437,000
1942	-	-	446,300	446,300
1943	-	-	381,900	381,900
1944	-	-	1,162,600	1,162,600
<u>Principal products made:</u>				
<u>Cider pressed, gallons 5/</u>				
1937	18,493,800	-	353,600	18,847,400
1938	10,662,000	-	146,000	10,808,000
1939	19,949,600	-	1,707,000	21,656,600
1940	9,336,400	-	627,600	9,964,000
1941	16,599,100	-	412,000	17,011,100
1942	16,575,400	-	311,600	16,887,000
1943	12,290,900	-	1,346,800	13,637,700
1944	18,388,100	-	359,200	18,747,300



Table 1.- Apples and apple products in cider mills, evaporators and canneries, New York, 1937-44 - Concluded

Year	: Cider Mills	: Evaporators	: Canneries	: Total
<u>Principal products made:</u>				
<u>Apple juice, gallons 5/, 6/</u>				
1940	2,665,300	-	695,000	3,360,300
1941	2,814,400	-	806,400	3,620,800
1942	3,336,500	-	348,500	3,685,000
1943	2,905,700	-	550,400	3,456,100
1944	5,284,600	-	978,000	6,262,600
<u>Dried apples, pounds</u>				
1937	-	7,101,200	-	7,101,200
1938	-	2,147,700	-	2,147,700
1939	-	7,076,700	-	7,076,700
1940	-	869,000	-	869,000
1941	-	3,056,700	-	3,056,700
1942	-	6,473,500	-	6,473,500
1943	-	2,736,200	-	2,736,200
1944	-	2,489,700	-	2,489,700
<u>Dried apple chops, pounds</u>				
1937	-	727,000	-	727,000
1938	-	192,300	-	192,300
1939	-	461,700	-	461,700
1940	-	469,400	-	469,400
1941	-	284,500	-	284,500
1942	-	356,700	-	356,700
1943	-	233,400	-	233,400
1944	-	194,000	-	194,000
<u>Dried skins and cores, pomace and waste, pounds 7/</u>				
1937	-	2,426,300	-	2,426,300
1938	-	104,000	-	104,000
1939	-	612,000	-	612,000
1940	-	454,200	-	454,200
1941	-	1,419,200	-	1,419,200
1942	-	3,587,100	-	3,587,100
1943	-	1,407,800	-	1,407,800
1944	-	1,704,100	-	1,704,100
<u>Canned apples and apple sauce, quantity of apples used for, bushels</u>				
1937	-	-	1,657,700	1,657,700
1938	-	-	790,100	790,100
1939	-	-	1,987,800	1,987,800
1940	-	-	1,351,500	1,351,500
1941	-	-	2,580,600	2,580,600
1942	-	-	2,751,700	2,751,700
1943	-	-	1,865,400	1,865,400
1944	-	-	2,010,200	2,010,200

1/ In a few cases operations of more than one type were carried on in a given establishment. The last column is the net number of establishments reporting, 7 joint operations having been noted in 1937, 3 in 1938, 2 in 1939, 4 in 1940, 4 in 1941, 10 in 1942, 12 in 1943 and 9 in 1944. "Custom" and "commercial" mills are included.

(Footnotes continued on page 5)



Footnotes Table 1 - Concluded

- 2/ Net receipts. Apples received at canneries and reported transferred to cider mills are included in cider mill receipts and not in cannery receipts. Of these there were reported, in bushels: 1937- 20,100; 1938 - 8,100; 1939- 35,600; 1940- 28,700; 1941- 65,600; 1942- 94,100; 1943- 140,900; 1944- 116,400. Part of the apples were reported as bushels and part as pounds. One bushel assumed to equal 48 pounds. All of the data relate to the crop produced in the year indicated even though processing frequently runs over into the next calendar year.
- 3/ These prices are the average of "average or prevailing prices" as reported, excluding cases where the special uses called for unusual grades, etc. and weighted by the importance of the various districts.
- 4/ Includes averages of usual operations. In a number of cases, intermittent or unusual operations extended well into the following spring and are not included here. There is considerable difference in the length of the processing season at the various plants and in different parts of the State. In 1945, operations continued until May in some plants. If 7 plants operating after March 1 are included the average date of closing canning operations would be January 21, 1945.
- 5/ Includes cider pressed from apple skins and cores. The quantity of apples used for cider in cider mills includes those used for "apple juice" in those establishments. No separate data were secured prior to 1940 when approximately 2,665,300 gallons of cider were sold as "apple juice", this term being equivalent to "sweet cider" in many cases, and about 29 percent of the total cider pressed in cider mills. In canneries, the "apple juice" first reported separately in 1940, is not included in cider pressed in those mills. In earlier years, apples used in canneries for "apple juice" were generally reported as used for products other than canned apples, apple sauce and cider, and were not separately tabulated.
- 6/ Including "apple juice" at canning factories, but not in cider mills where apples so used are included with those for cider. Small amounts of loss and shrinkage are included. Among other products in which these apples are used are jelly, apple butter, mincemeat, food for infants and frozen apples. In 1941, 1943 and 1944, some apples were sorted out and sold to packers without processing. In 1944, apples reported as used for freezing were 577,400 bushels. This is the first year the report form asked for them separately.
- 7/ In 1941, dried skins and cores amounted to 595,300 pounds and dried pomace 823,900 pounds; in 1942, dried skins and cores 1,461,100 pounds and dried pomace 2,126,000 pounds; in 1943 dried skins and cores 649,800 pounds and 758,000 pounds of dried pomace; in 1944 dried skins and cores 536,100 pounds and dried pomace 1,168,000 pounds.
- 8/
 

Ontario Dist.	- Niagara, Orleans, Monroe, Wayne
Mid-western Dist.	- Erie, Genesee, Wyoming, Livingston, Ontario, Yates, Seneca, Tompkins
Hudson Dist.	- Columbia, Dutchess, Putnam, Westchester, Greene, Ulster, Orange, Rockland
Champlain Dist.	- Clinton, Essex
Other Dist.	- All counties not included above.

The districts used in the tables in this publication include counties as above.

Table 2.- Apples received at manufacturing plants, by districts, crops of 1937-44 1/

District	: Cider Mills	: Evaporators	: Canneries	: Total
1,000 bushels (net)				
<u>Ontario</u>				
1937	2,604	1,167	1,612	5,383
1938	1,305	347	798	2,450
1939	2,912	1,153	2,190	6,255
1940	1,131	166	1,545	2,842
1941	2,274	465	2,807	5,546
1942	2,046	945	2,942	5,933
1943	1,671	440	2,135	4,246
1944	2,308	398	2,795	5,501
<u>Mid-western</u>				
1937	324	88	200	612
1938	236	21	44	301
1939	392	20	141	553
1940	223	15	77	315
1941	265	32	111	408
1942	274	114	112	500
1943	138	22	70	230
1944	198	14	90	302
<u>Hudson</u>				
1937	554	-	-	554
1938	390	-	-	390
1939	467	-	-	467
1940	289	-	-	289
1941	336	-	-	336
1942	455	-	-	455
1943	276	-	-	276
1944	769	-	1	770
<u>Champlain</u>				
1937	14	-	-	14
1938	11	-	-	11
1939	15	-	-	15
1940	14	-	-	14
1941	22	-	-	22
1942	13	-	-	13
1943	7	-	-	7
1944	9	-	-	9
<u>Other</u>				
1937	938	30	61	1,029
1938	680	6	24	710
1939	987	34	51	1,072
1940	652	18	65	735
1941	872	40	104	1,016
1942	791	41	154	986
1943	650	40	162	852
1944	697	29	300	1,026
<u>State Total</u>				
1937	4,434	1,285	1,873	7,592
1938	2,622	374	866	3,862
1939	4,773	1,207	2,382	8,362
1940	2,309	199	1,687	4,195
1941	3,769	537	3,022	7,328
1942	3,579	1,100	3,208	7,887
1943	2,742	502	2,367	5,611
1944	3,981	441	3,186	7,608

1/ The counties in the various districts are given in Footnote 8, page 5.



Table 3.- Cider made, by districts, crops of 1937-44 1/

District	Cider Mills	Evaporators	Canneries	Total
		1,000 gallons		
<u>Ontario</u>				
1937	11,619	-	354	11,973
1938	5,617	-	146	5,763
1939	12,758	-	1,707	14,465
1940	4,885	-	628	5,513
1941	10,958	-	412	11,370
1942	10,547	-	312	10,859
1943	8,093	-	1,347	9,440
1944	11,014	-	269	11,283
<u>Mid-western</u>				
1937	1,534	-	-	1,534
1938	896	-	-	896
1939	1,674	-	-	1,674
1940	867	-	-	867
1941	1,069	-	-	1,069
1942	1,128	-	-	1,128
1943	541	-	-	541
1944	845	-	90	935
<u>Hudson</u>				
1937	1,947	-	-	1,947
1938	1,412	-	-	1,412
1939	1,671	-	-	1,671
1940	1,020	-	-	1,020
1941	1,134	-	-	1,134
1942	1,652	-	-	1,652
1943	984	-	-	984
1944	3,566	-	-	3,566
<u>Champlain</u>				
1937	49	-	-	49
1938	33	-	-	33
1939	40	-	-	40
1940	46	-	-	46
1941	68	-	-	68
1942	41	-	-	41
1943	23	-	-	23
1944	30	-	-	30
<u>Other</u>				
1937	3,345	-	-	3,345
1938	2,704	-	-	2,704
1939	3,807	-	-	3,807
1940	2,518	-	-	2,518
1941	3,416	-	-	3,416
1942	3,207	-	-	3,207
1943	2,650	-	-	2,650
1944	2,933	-	-	2,933
<u>State total</u>				
1937	18,494	-	354	18,848
1938	10,662	-	146	10,808
1939	19,950	-	1,707	21,657
1940	9,336	-	628	9,964
1941	16,645	-	412	17,057
1942	16,575	-	312	16,887
1943	12,291	-	1,347	13,638
1944	18,388	-	359	18,747

1/ See footnotes, Tables 1 and 2 for explanations.



Table 4.- "Apple juice", by districts, crops of 1940-44 1/

District	Total				
	1940	1941	1942	1943	1944
	1,000 gallons				
Ontario . . . . .	1,929	1,991	1,868	2,138	3,879
Mid-western . . . . .	289	322	180	158	116
Hudson. . . . .	305	268	826	221	528
Champlain . . . . .	15	33	23	16	21
Other . . . . .	822	1,007	788	923	1,719
State total . . . . .	3,360	3,621	3,685	3,456	6,263

1/ See footnote, Tables 1 and 2 for explanations.

Table 5.- Yield of apple products from 100 pounds of fresh apples 1/

Product and district	1937	1938	1939	1940	1941	1942	1943	1944
Cider from 100 pounds of fresh apples, gallons:								
Ontario	7.6	7.3	7.2	7.5	7.4	7.4	7.6	7.6
Mid-western	7.0	7.1	6.9	7.0	7.0	7.1	7.0	7.2
Hudson	6.9	7.1	6.8	6.9	6.7	6.9	6.7	6.9
Champlain	6.3	6.5	7.0	7.2	6.6	6.8	6.4	6.7
Other	6.6	6.6	6.6	6.6	6.8	6.7	6.8	6.8
State average	7.3	7.1	7.0	7.1	7.2	7.2	7.3	7.3

Dried apples from 100 pounds of fresh apples, pounds:

State average	12.2	12.6	12.5	11.9	12.4	12.3	12.2	12.4
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Canned apples from 100 pounds of fresh apples, dozens No. 10 cans:

State average	.88	.85	.83	.84	.81	.79	.81	.83
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Apple sauce from 100 pounds of fresh apples, cases of 24 No. 2 cans:

State average	2.59	2.61	2.60	2.60	2.51	2.59	2.60	2.66
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1/ The quantity of product reported as manufactured from 100 pounds of fresh apples varied rather widely. The above figures are averages of reports received, except that for cider the state average is derived from the district averages by weighting by the quantity of apples received at cider mills in each district. If weighted by individual mills, the average yields would be somewhat higher, since in the large mills which handle a relatively large proportion of the cider apples, yields ranging from 8.0 to 9.8 gallons of cider per 100 pounds of apples were reported.

Apple "chops" (dried) were made at the rate of 18 to 20 pounds from 100 pounds of fresh apples in 1944.

"Frozen" apples were made at the rate of about two 30-pound cans from 100 pounds of fresh apples in 1944.

See footnote, Table 2, for counties included in various districts.

Table 6.- Prices received for apples at manufacturing plants, by districts,  
crops of 1937-44 <sup>1/</sup>

District	: Cider Mills	: Evaporators	: Canneries	: All
Ontario				
		Per 100 pounds		
1937	\$ .18	\$ .33	\$ .41	\$ .28
1938	.23	.28	.57	.35
1939	.15	.27	.43	.27
1940	.26	.30	.74	.53
1941	.34	.59	1.19	.81
1942	.45	1.46	1.56	1.16
1943	1.22	2.90	3.07	2.32
1944	1.11	2.99	3.15	2.28
Mid-western				
1937	.24	.26	.52	.33
1938	.27	.25	.67	.33
1939	.19	.20	.46	.26
1940	.26	.25	.77	.39
1941	.34	.52	1.16	.58
1942	.42	1.42	1.74	.94
1943	.97	2.25	3.10	1.74
1944	1.05	2.75	3.38	1.82
Hudson				
1937	.25	-	-	.25
1938	.26	-	-	.26
1939	.24	-	-	.24
1940	.34	-	-	.34
1941	.38	-	-	.38
1942	.40	-	-	.40
1943	.98	-	-	.98
1944	.88	-	-	.88
Champlain				
1937	.21	-	-	.21
1938	.46	-	-	.46
1939	.19	-	-	.19
1940	.30	-	-	.30
1941	.26	-	-	.26
1942	.31	-	-	.31
1943	.98	-	-	.98
1944	1.08	-	-	1.08
Other				
1937	.29	.40	.52	.31
1938	.33	.20	.80	.34
1939	.25	.18	.55	.26
1940	.33	.25	.94	.36
1941	.34	.35	1.26	.44
1942	.45	1.50	2.02	.74
1943	.99	2.75	3.72	1.59
1944	.98	2.75	3.72	1.83
State average				
1937	.22	.33	.43	.29
1938	.26	.28	.58	.34
1939	.18	.27	.43	.26
1940 (revised)	.28	.29	.75	.47
1941	.34	.57	1.19	.72
1942	.44	1.46	1.59	1.05
1943	1.13	2.86	3.12	2.12
1944	1.04	2.96	3.21	2.06

<sup>1/</sup> See footnotes, Tables 1 and 2 for explanations.



Table 7.- Apples received from other states at New York processing plants,  
crop of 1944

<u>By states of origin 1/</u>	<u>Bushels</u>
Maine, New Hampshire, Massachusetts, Connecticut	103,300
New Jersey, Pennsylvania	50,700
Ohio, Michigan	20,000
Delaware, Maryland	29,900
Virginia, West Virginia	275,500
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Total	479,400
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<u>By district in New York in which received 2/</u>	
Ontario	376,700
Mid-western	31,300
Hudson, Champlain and Other	71,400
<hr/>	
Total	479,400

1/ States grouped to prevent disclosure of individual operations. In a few cases receipts of apples from more than one state were grouped and the proportion to be credited to a given state was necessarily estimated.

2/ For counties included in each district see Footnote 8, Table 1, on page 5.